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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/537,294	03/29/2000	Yoshio Morikawa	325772016800	7129

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EXAMINER	
REITZ, KARL	
ART UNIT	**PAPER NUMBER**
2624	7

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/537,294	Applicant(s) MORIKAWA ET AL.	
	Examiner Karl R. Reitz	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 March 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 216, 217 (figure 2), 115 and 114 (figure 3). A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 4 recites the limitation "the managing printing device" in lines 24-25. There is insufficient antecedent basis for this limitation in the claim, since a managing printing device has not been defined in the earlier parts of the claim.

5. Claims 2, 3, 5, 6, 8, 9, 11, 12, 14, 15, 17, 21-24 and 26-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims refer to selecting or designating a printing device with "the highest data processing capability." The phrase "highest data processing capability" is unclear. Many

capabilities are monitored, such as language, resolution, printing speed and memory (as show in figure 7B provided by applicant). Thus from the phrase "highest data processing capability," it is unclear which individual one, of these multiple capabilities, should be highest. Claims 24 and 29 refer to "lowest data processing capability." This phrase is unclear for analogous reasons.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kopecki (6,577,407) in further view of Shima (6,369,909).

8. In accordance with claims 1, 4 and 7, Kopecki discloses a printing system 10 (figure 1) with a plurality of processing (11a-n) and printing (14 and 16a-n) devices for executing a printing operating (col. 3 lines 59-64).

9. Kopecki further discloses communication means 22 (figure 4) for communicating data among the printing devices (col. 7 lines 42-47)

10. Kopecki further discloses printing means 20 (in the primary device) and 34 (in the secondary devices), in each of the printing devices, for executing a print job based on the print job signal (col. 6 lines 63-64 and col. 8 lines 57-58).

11. Kopecki further discloses a controller 24 for executing processes (col. 5 lines 49-54).

12. Kopecki further discloses that the processor executes a command for transmitting a status signal from each of the printing devices 16a-n to the designated managing printing device 14 (col. 7 lines 44-46).

13. Kopecki further discloses the designation of a managing printing device 14; in Kopecki's system, the primary printing device is the printer with direct connection to the network (col. 4 lines 44-46).

14. Kopecki further discloses that the processor executes a command for transferring a printing job signal received by a printing device being inoperative to execute a print job to another one of the printing devices to which the inoperative device belongs; in Kopecki's system processor 24 controls the transfer of data from the primary printer 14 to the secondary printers 16a-n (col. 5 lines 49-54) based upon the status (busy/non-busy or in-service/out-of-service) of the secondary printer 16a-n (col. 5 lines 64-66).

15. However, Kopecki does not disclose expressly that the controller executes a process for grouping devices based on processing languages employed in the devices. Kopecki further does not disclose expressly that the managing printing device is chosen among the printing devices belonging to the same language group. Kopecki further does not disclose expressly that when the job is transferred to a secondary printer 16a-n, due to an inoperative state in the primary printer, the secondary printer must belong to the same language group to which the inoperative device belongs.

16. Shima discloses that printer grouping is performed based on the type of printer (col. 29 lines 45-46) and further that a printer can understand print data expressed in only a specific printer control language (col. 2 lines 42-43).

17. Kopecki and Shima are combinable because they are from the same field of endeavor, namely grouping printers and processing print jobs within the group through a managing printing device.

18. Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art, to grouping devices in Kopecki's system based on processing languages employed in the devices, as disclosed by Shima. Further, it would have been obvious to choose the managing printing device among the printing devices belonging to the same language group. Further, it would have been obvious that when the job is transferred to a secondary printer 16a-n, due to an inoperative state in the primary printer, the secondary printer must belong to the same language group to which the inoperative device belongs.

19. The motivation for doing so would have been to: a) ensure that the printer that receives the print data is able to understand the data (which it would not be able to do if it was part of a different language group than the transmitting device) (Shima: col. 2 lines 42-43) and b) increase the throughput of the print system by grouping common devices together (Shima: col. 29 lines 45-46).

20. In accordance with claims 10, 13 and 16, Shima discloses using a computer program to implement the means of the printing system (col. 7 lines 58-67). Therefore, the steps of the programs in claims 10, 13 and 16 are performed in the means of claims 1, 4 and 7, respectively.

21. In accordance with claims 18, 19 and 20, the method steps of claims 18, 19 and 20 are all performed by the means of the apparatus of claims 1, 4 and 7, respectively.

The grouping, designating, transmitting and transferring processes executed by the controller 24 of claims 1, 4 and 7 performs the grouping, designating, transmitting, and transferring steps of claims 18, 19 and 20, respectively.

22. In accordance with claims 2, 5 and 8, Shima further discloses that the managing printing device contains storage means (device table as shown in figure 25) for storing data regarding all other printing devices (col. 33 lines 1-9).

23. Shima discloses the managing device is chosen a "high-function printer," while the secondary printers are low-function (col. 12 lines 45-48), thus the managing printing device is chosen to be the one with the highest data processing capability.

24. Neither Kopecki nor Shima discloses expressly that data is stored in each of the secondary printing devices regarding the capabilities of the managing printing device or that data is transmitted from all printing devices to all other printing devices.

25. However, with the combination of Kopecki and Shima, it would be obvious to store information regarding the capabilities of the primary printing device in the memory 38 of the secondary printing devices and transmit capability data to and from all printing devices.

26. The motivation for doing so would have been to a) ensure that data being sent from the primary printer is in the same language format as the receiving secondary printer and b) enable all printers in the system to determine whether printing should be performed by the primary printer, or by one of the secondary printer according to a method like the one disclosed by Shima on col. 30 lines 38-48, and thus obtain the most efficient processing time.

27. In accordance with claims 11, 14 and 17, Shima discloses using a computer program to implement the means of the printing system (col. 7 lines 58-67). Therefore, the steps of the programs in claims 11, 14 and 17 are performed in the means of claims 2, 5 and 8, respectively.

28. In accordance with claims 3 and 6, Kopecki discloses that the primary printer 14 assigns a print job is to a secondary printer 16a-n based on the data processing capabilities of the secondary primary (col. 5 lines 60-62).

29. In accordance with claims 12 and 15, Shima discloses using a computer program to implement the means of the printing system (col. 7 lines 58-67). Therefore, the steps of the programs in claims 12 and 15 are performed in the means of claims 3 and 6, respectively.

30. In accordance with claims 9, 21 and 25, Kopecki discloses a printing system 10 (figure 1) with a plurality of processing (11a-n) and printing (14 and 16a-n) devices for executing a printing operating (col. 3 lines 59-64).

31. Kopecki further discloses communication means 22 (figure 4) for communicating data among the printing devices (col. 7 lines 42-47)

32. Kopecki further discloses printing means 20 (in the primary device) and 34 (in the secondary devices), in each of the printing devices, for executing a print job based on the print job signal (col. 6 lines 63-64 and col. 8 lines 57-58).

33. Shima further discloses that the managing printing device contains storage means (device table as shown in figure 25) for storing data regarding all other printing devices (col. 33 lines 1-9).

34. Kopecki further discloses a controller 24 for executing processes (col. 5 lines 49-54).

35. The combination of Kopecki and Shima, as described above for claim 1, would include grouping devices in Kopecki's system based on processing languages employed in the devices, as disclosed by Shima.

36. Shima discloses the managing device chosen is a "high-function printer," while the secondary printers are low-function (col. 12 lines 45-48), thus the managing printing device is chosen to be the one with the highest data processing capability.

37. With the combination of Kopecki and Shima, as described for claim 2, it would be obvious to store information regarding the capabilities of the primary printing device in the memory 38 of the secondary printing devices and transmit capability data to and from all printing devices including the primary printer device.

38. Kopecki further discloses that the managing printing device 14 selects one printing device to which a received print job is transferred based on signals sent from the secondary printing devices, including the operability/inoperability of the device (col. 5 lines 56-66).

39. In accordance with claims 26 and 30, Shima discloses using a computer program to implement the means of the printing system (col. 7 lines 58-67). Therefore, the steps of the programs in claims 26 and 30 are performed in the means of claims 21 and 25, respectively.

40. In accordance with claim 22, Shima discloses the managing device chosen is a "high-function printer," while the secondary printers are low-function (col. 12 lines 45-

48), thus the managing printing device is chosen to be the one with the highest data processing capability. The combination of Kopecki and Shima, as described above for claim 1, would include grouping devices in Kopecki's system based on processing languages employed in the devices, as disclosed by Shima.

41. With the combination of Kopecki and Shima, as described for claim 2, it would be obvious to store information regarding the capabilities of the primary printing device in the memory 38 of the secondary printing devices and transmit capability data to and from all printing devices including the primary printer device.

42. In accordance with claim 27, Shima discloses using a computer program to implement the means of the printing system (col. 7 lines 58-67). Therefore, the steps of the program in claim 27 are performed in the means of claim 22.

43. In accordance with claim 23, Kopecki discloses that in the preferred embodiment, print data is routed to a printer based the user's input during the print command (col. 5 lines 60-62). Neither Kopecki nor Shima expressly disclose allowing the user to arbitrarily select the managing printing device. However, from the combination of Kopecki and Shima, it would be obvious to allow the managing device to be chosen by the user. The motivation for doing so would have been to allow the user to preferentially print the data at the printer closest the user, minimizing the distance the user is required to travel to obtain the printed document.

44. In accordance with claim 28, Shima discloses using a computer program to implement the means of the printing system (col. 7 lines 58-67). Therefore, the steps of the program in claim 28 are performed in the means of claim 23.

45. In accordance with claim 24, Shima discloses that a print job is transferred to a printing device having the lowest data processing capability among the devices in the same group; in Shima's system, jobs are transferred based on the list on col. 30 lines 38-48, in item 5 for example, if a print job is monochrome, it is not transferred to a color printer, even though the color printer has more capabilities, namely printing in color.

46. In accordance with claim 29, Shima discloses using a computer program to implement the means of the printing system (col. 7 lines 58-67). Therefore, the steps of the program in claim 29 are performed in the means of claim 24.

Contact Information

47. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl R. Reitz whose telephone number is (703) 305-8696. The examiner can normally be reached on Monday-Friday 8:00-4:30.

48. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (703) 305-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

49. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KRR

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